

**ABSTRACT**

The present invention provides nucleic acid compositions or ladders which may be used as standards for estimating the size (in base pairs) and or mass of nucleic acid molecules of unknown size and/or mass. The invention also relates to methods for producing such compositions or ladders, ladders or compositions produced by such methods, and to methods for estimating the size and/or mass of nucleic acid molecules by comparison to these nucleic acid sizing ladders.